

SECTION 03920**CONCRETE RESURFACING****PART I GENERAL****1.1 SCOPE**

This Section defines the work related to the removal of a surface layer from the existing concrete pads utilizing surface removal technologies. Principals included in this Section are:

- A. Removing surface layer.
- B. Controlling and transporting waste produced during the removal of concrete.
- C. Controlling the spread of radiological contamination in the operating area.
- D. Equipment types and usage.

1.2 RELATED SECTIONS

- A. Section 01120 - Debris/Waste Handling Criteria.
- B. Section 01517 - Removing/Fixing Radiological Contamination.
- C. Section 15067 - Ventilation and Containment.
- D. Section 01519 - Decontamination of Contractor Provided Tools, Equipment, and Materials.

1.3 REFERENCE MATERIALS

- A. See Part 7 of the Invitation for Bid/Request for Proposal (IFB/RFP) Package for the following:
 - 1. Index of Drawings.
 - 2. Photographs.
 - 3. Existing Drawings.
- B. See Part 8 of the IFB/RFP Package for the Radiological Requirements.

1.4 REFERENCES, CODES, AND STANDARDS

See General Section 01010 for these References, Codes and Standards.

1.5 SUBMITTALS

- A. Before start of concrete removal work, the Contractor shall submit for approval a work plan describing the system design for removing concrete. The work plan shall describe methods and equipment for removing concrete, including equipment used for controlling, filtering, and transporting waste generated during removal activities. The work plan shall also describe methods and equipment used to control the generation and spread of contamination.

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- B. Product Data: The Contractor shall submit manufacturer's technical information on all materials to be used, including their intended use and application instructions.
- C. See Part 6 of the IFB/RFP for additional submittal requirements.

1.6 QUALITY ASSURANCE

Prior to commencement of work, the Contractor shall demonstrate the methods for removing concrete on a sample area of a concrete floor selected by FDF.

1.7 PROJECT CONDITIONS

- A. Radiological contamination has been detected on concrete pads, as shown on referenced drawings. The Contractor is to remove surface layers of concrete in the locations and to the depth specified in the IFB/RFP. This may require concrete removal adjacent to curbs and foundations.
- B. See referenced drawings in Part 7 of the IFB/RFP for work area and local underground utilities.

PART II PRODUCTS**2.1 MANUFACTURERS/EQUIPMENT**

- A. The Contractor shall supply a system with all equipment required to remove concrete, including equipment to control, filter, and transport waste produced during concrete removal.
- B. The concrete removal system (equipment) shall include, but not be limited to, the following features:
 - 1. Integral vacuum system with pre- and HEPA filters.
 - 2. Controlled, dustless process with personnel exposure below DAC limits as defined in Part 8 of the IFB/RFP.
 - 3. Simultaneous collection of waste in 55-gallon drums.
 - 4. No use of water where technetium-99 contamination is of concern.
 - 5. Equipment shall be portable.
 - 6. Consideration shall be used to select equipment that can be easily decontaminated for free release after use. For details on releasing tools and equipment, refer to Section 01519.
 - 7. Equipment shall implement waste management technology that minimizes secondary waste.

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8. Vacuum design shall allow operator to fill, seal, remove, and replace the waste drum under negative pressure vacuum conditions/enclosures.
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- C. Acceptable equipment vendors are identified below. The listing of this typical equipment below in no way precludes alternate suppliers. Contractor is encouraged to investigate all alternatives to determine Best Available Technology. Alternate technologies may be proposed, provided they meet the requirements of this specification.

Typical equipment:
Pentek Moose, Squirrel and Corner-Cutter scabblers
Pentek Inc.
Decontamination Products Division
1026 Fourth Avenue
Coraopolis, PA 15108
 - D. FDF will provide standard 55-gallon drums for collection of waste. The Contractor shall provide all replacement filters.
 - E. Vendor shall provide method(s) for concrete removal adjacent to areas such as curbs and around foundations.
 - F. Erection of any necessary local containment shall be defined by the vendor in accordance with the requirements of Section 15067.

PART III EXECUTION

3.1 APPLICATION

- A. All concrete removal activities shall be performed in accordance with 10 CFR 835.
- B. All work is to be performed according to FDF's health and safety requirements. Personnel in the controlled area shall be required to wear personal protective equipment as detailed in the health and safety matrix.
- C. The Contractor shall control dust and debris generated while removing concrete. FDF shall monitor the area for airborne contamination. Contractor shall be required to make changes to operating methods and equipment if unacceptable levels of airborne contamination are found in the operating area.
- D. The Contractor shall collect all waste generated while removing concrete. Waste and effluent shall be packaged in accordance with the requirements in the Waste Management Plan, located in Part 6 of the IFB/RFP.

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- E. Once the concrete has been removed, the Contractor shall take precautions to prevent the further spread of radiological contamination to the area.

3.2 FIELD QUALITY ASSURANCE

- A. The Contractor shall verify that the removal depths indicated in Part 6 of the IFB/RFP are met. The removal depths are the minimum requirements for concrete removal. Acceptable performance is achieved when the minimum removal has occurred over the work area specified.
- B. FDF shall perform oversight and field verifications of the removal activity to ensure the removal depth criteria is met.

END OF SECTION